EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2.   Authorization for this examiner's amendment was given in a telephone interview with Steven R. Gilliam (Reg. No. 51,734) on October 7, 2009.

3.   In the specification:

        Page 1, line 10, after "May 29, 2003", insert --, now abandoned--.

4.   Amend the claims as follows:

1. (Currently Amended) A data processing method for a data processing system comprising a messaging service and a transaction service, the method comprising:

        receiving a request to send an asynchronous message to a queue, wherein the request is received <u>by the messaging service</u> under the scope of a transaction, wherein the request is received from a sender and the asynchronous message comprises message data;

        registering a definition for the queue <u>with the messaging service</u>, the definition providing details of an operation provided by a recipient;

processing the request to send the asynchronous message by delivering the

asynchronous message to the recipient, wherein the request is processed by the

messaging service prior to completion of the transaction, ~~wherein~~ and the asynchronous

message is delivered to the recipient by calling the operation and including details of the

asynchronous message and wherein the recipient is registered with the messaging

service to process messages from the queue;

receiving one or more requests, at the transaction service, to register

involvement of one or more participants in the transaction, wherein each of the one or

more participants represents transactional work done as a result of the recipient

processing the asynchronous message; and

completing the transaction by the transaction service wherein the completing the

transaction comprises instructing each of the one or more participants to complete,

wherein transactional work done, as a result of the recipient processing the

asynchronous message, is involved in the transaction under the scope of which the

asynchronous message was sent to the recipient from the messaging service.

2. (Currently Amended) A The method as claimed in claim 1 wherein one of the one or

more requests to register involvement of one or more participants in the transaction,

registers involvement of the recipient as a participant in the transaction.

3. (Currently Amended) A The method as claimed in claim 2 wherein the one of the one

or more requests to register the involvement of the recipient as a participant in the

transaction includes details of the queue, wherein the completing the transaction
comprises instructing the recipient to complete by sending one or more messages to the
queue.

4. (Currently Amended) A The method as claimed in claim 2 wherein the request to
register the involvement of the recipient as a participant in the transaction includes
details of a second queue to the transaction wherein the completing the transaction
comprises instructing the recipient to complete by sending one or more messages to the
second queue.

5.   (Currently Amended) A The method as claimed in claim I wherein the transaction is
a first transaction and the method further comprises:

        processing the asynchronous message by the recipient; wherein the processing
of the asynchronous message by the recipient comprises:

        informing a second transaction of the first transaction, details of which were
included with the asynchronous message; and

        calling a second recipient and, as part of calling the second recipient, passing the
asynchronous message data to the second recipient for processing under the scope of
the second transaction.

6. (Currently Amended) A The method as claimed in claim 5 wherein the processing of
the asynchronous message by the recipient comprises starting the second transaction.

7. (Currently Amended) A The method as claimed in claim 5 wherein the processing of the asynchronous message by the recipient comprises prior to calling the second recipient, registering as a temporary participant in the second transaction; and

on return from calling the second recipient, unregistering as a temporary participant in the second transaction.

8.(Currently Amended) A The method as claimed in claim 7 wherein as part of the unregistering as a temporary participant a vote is passed to the second transaction, the vote comprising an indication as to whether the second transaction should commit or rollback.

9. (Currently Amended) A The method as claimed in claim 8 further comprising:

in response to the unregistering as a temporary participant, including a vote comprising an indication that the second transaction should rollback, marking the second transaction as rollback only.

10.(Currently Amended) A The method as claimed in claim 5 wherein the second transaction acts as a subordinate transaction to the first transaction, details of which were included with the asynchronous message.

11.(Currently Amended) A The method according to claim 5 wherein the second transaction acts as a nested transaction within the first transaction, details of which were included with the asynchronous message.

12. (Currently Amended) A The method as claimed in claim 8 wherein the second transaction acts as a nested transaction within the first transaction, details of which were included with the asynchronous message and the method further comprises:

in response to the unregistering as a temporary participant, including a vote comprising an indication that the second transaction should rollback, rolling back the second transaction; and

restoring the asynchronous message to the queue.

13. (Currently Amended) A data processing system comprising a messaging service and a transaction service, the system comprising:

means for the messaging service to receive a request to send an asynchronous message to a queue, wherein the request is received under the scope of a transaction, wherein the request is received from a sender and the asynchronous message comprises message data;

means for registering a definition for the queue with the messaging service, the definition providing details of an operation provided by a recipient;

means for the messaging service to process the request to send an the asynchronous message by delivering the asynchronous message to the recipient, prior

to completion of the transaction, ~~wherein~~ and the asynchronous message is delivered to the recipient by calling the operation and including details of the asynchronous message and wherein the recipient is registered with the messaging service to process messages from the queue;

means for the transaction service to receive a request to register involvement of a participant in the transaction, wherein the participant represents transactional work done as a result of the recipient processing the asynchronous message; and

means for the transaction service to complete the transaction comprising instructing ~~each~~ the participant in the transaction to complete, wherein transactional work done, as a result of the recipient processing the asynchronous message, is involved in the transaction under the scope of which the asynchronous message was sent to the recipient from the messaging service.

14. (Currently Amended) ~~A~~ The data processing system as claimed in claim 13 wherein the means for receiving a request to register involvement of a participant in the transaction receives a request to register involvement of the recipient as a participant in the transaction.

15. (Currently Amended) ~~A~~ The data processing system as claimed in claim 14 wherein the request received to register the involvement of the recipient in the transaction includes details of the queue, wherein the means for the transaction service to complete the transaction instructs the recipient to complete by sending one or more messages to

the queue.

16. (Currently Amended) A The data processing system as claimed in claim 14 wherein the request received to register the involvement of the recipient in the transaction includes details of a second queue, wherein the means for the transaction service to complete the transaction instructs the recipient to complete by sending one or more messages to the second queue.

17. (Currently Amended) A The data processing system as claimed in claim 13 wherein the transaction is a first transaction and the recipient comprises:

    means for processing the asynchronous message, wherein the means for processing the asynchronous message by the recipient comprise:

    means for informing a second transaction of the first transaction, details of which were included with the asynchronous message; and

    means for calling a second recipient and as part of the calling the second recipient, passing the asynchronous message data to the second recipient for processing under the scope of the second transaction.

18. (Currently Amended) A The data processing system as claimed in claim 17 wherein the means for processing the asynchronous message by the recipient further comprises:

    means for starting the second transaction.

19. (Currently Amended) A The data processing system as claimed in claim 17 wherein the means for processing the asynchronous message by the recipient further comprises:

      means for registering as a temporary participant in the second transaction, prior to calling the second recipient; and

      means for unregistering as a temporary participant in the second transaction, on return from calling the second recipient.

20. (Currently Amended) A The data processing system as claimed in claim 19 wherein the means for unregistering passes a vote to the second transaction, the vote comprising an indication as to whether the second transaction should commit or rollback.

21. (Currently Amended) A The data processing system as claimed in claim 20 further comprising:

      means, responsive to the means for unregistering as a temporary participant, passing a vote comprising an indication that the second transaction should rollback, for marking the second transaction as rollback only.

22. (Currently Amended) A The data processing system as claimed in claim 17 wherein the second transaction acts as a subordinate transaction to the first transaction, details

of which were included with the asynchronous message.

23. (Currently Amended) A The data processing system as claimed in claims 17
wherein the second transaction acts as a nested transaction within the first transaction,
details of which were included with the asynchronous message.

24. (Currently Amended) A The data processing system as claimed in claim 20 wherein
the second transaction acts as a nested transaction within the first transaction, details of
which were included with the asynchronous message and the messaging data
processing system further comprises:

    means, responsive to the means for unregistering as a temporary participant,
including a vote comprising an indication that the second transaction should rollback, for
rolling back the second transaction; and

    means for restoring the asynchronous message to the queue.

25. (Currently Amended) A computer program product comprising instructions encoded
in a computer readable medium, which, when executed on a data processing host,
cause the host to perform operations that comprise:

    receiving a request to send an asynchronous message to a queue, wherein the
request is received by the messaging service under the scope of a transaction, wherein
the request is received from a sender and the asynchronous message comprises
message data;

registering a definition for the queue <u>with the messaging service</u>, the definition
providing details of an operation provided by a recipient;

processing the request to send the asynchronous message by delivering the
asynchronous message to the recipient,<u> wherein the request is processed by the
messaging service </u>prior to completion of the transaction, ~~wherein~~ <u>and</u> the asynchronous
message is delivered to the recipient by calling the operation and including details of the
asynchronous message and wherein the recipient is registered with the messaging
service to process messages from the queue;

receiving one or more requests<u>, at the transaction service,</u> to register
involvement of one or more participants in the transaction, wherein each of the one or
more participants represents transactional work done as a result of the recipient
processing the asynchronous message; and

completing the transaction <u>by the transaction service</u> wherein the completing the
transaction comprises instructing each of the one or more participants to complete,
 wherein transactional work done, as a result of the recipient processing the
asynchronous message, is involved in the transaction under the scope of which the
asynchronous message was sent <u>to the recipient from the messaging service</u>.

26. (Currently Amended) A <u>The</u> computer program product as claimed in claim 25
wherein one of the one or more requests to register involvement of one or more
participants in the transaction, registers involvement of the recipient as a participant in

the transaction.

27. (Currently Amended) A The computer program product as claimed in claim 26

wherein the request to register the involvement of the recipient as a participant in the

transaction includes details of the queue, wherein the completing the transaction

comprises instructing the recipient to complete by sending one or more messages to the

queue.

28. (Currently Amended) A The computer program product as claimed in claim 26

wherein the request to register the involvement of the recipient as a participant in the

transaction includes details of a second queue to the transaction wherein the

completing the transaction comprises instructing the recipient to complete by sending

one or more messages to the second queue.

29. (Currently Amended) A The computer program product as claimed in claim 25

wherein the transaction is a first transaction and the operations further comprise:

        processing the asynchronous message by the recipient;

        wherein the processing of the asynchronous message by the recipient comprises

informing a second transaction of the first transaction, details of which were included

with the asynchronous message; and

        calling a second recipient and as part of the calling a second recipient passing

the asynchronous message data to the second recipient for processing under the scope

of the second transaction.

30. (Currently Amended) A The computer program product as claimed in claim 29
wherein the processing of the asynchronous message by the recipient comprises the
further operation of:

      starting the second transaction.

31. (Currently Amended) A The computer program product as claimed in claim 29
wherein the processing of the asynchronous message by the recipient comprises the
further operations of:

      prior to calling the second recipient, registering as a temporary participant in the
second transaction; and

      on return from calling the second recipient, unregistering as a temporary
participant in the second transaction.

32. (Currently Amended) A The computer program product as claimed in claim 31
wherein as part of the operation of unregistering as a temporary participant in the
second transaction a vote is passed to the second transaction, the vote comprising an
indication as to whether the second transaction should commit or rollback.

33. (Currently Amended) A The computer program product as claimed in claim 32,
wherein the operations further comprise:

      in response to the operation of unregistering as a temporary participant in the
second transaction including a vote comprising an indication that the second transaction

should rollback, marking the second transaction as rollback only.

34. (Currently Amended) A The computer program product as claimed in claim 29
wherein the second transaction acts as a subordinate transaction to the first transaction,
details of which were included with the asynchronous message.

35. (Currently Amended) A The computer program product according to claim 29
wherein the second transaction acts as a nested transaction within the first transaction,
details of which were included with the asynchronous message.

36. (Currently Amended) A The computer program product as claimed in claim 32
wherein the second transaction acts as a nested transaction within the first transaction,
details of which were included with the asynchronous message and the operations
further comprise:

in response to the unregistering as a temporary participant in the second
transaction including a vote comprising an indication that the second transaction should
rollback;, rolling back the second transaction; and

restoring the asynchronous message to the queue.

5.   Claims 13-24 meet the three prong analysis and are presumed to invoke 35
U.S.C. 112, sixth paragraph. Therefore, claims 13-24 are not software per se and do not
raise 101 issue.

6.   Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONCLUSION

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 7,222,148 B2 to Potter et al., discloses processing of an asynchronous request accomplished in a single transaction.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

9.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sough can be reached on (571) 272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 8, 2009

KV

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10/09/09